

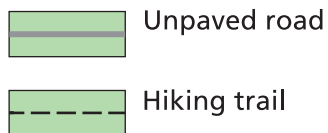
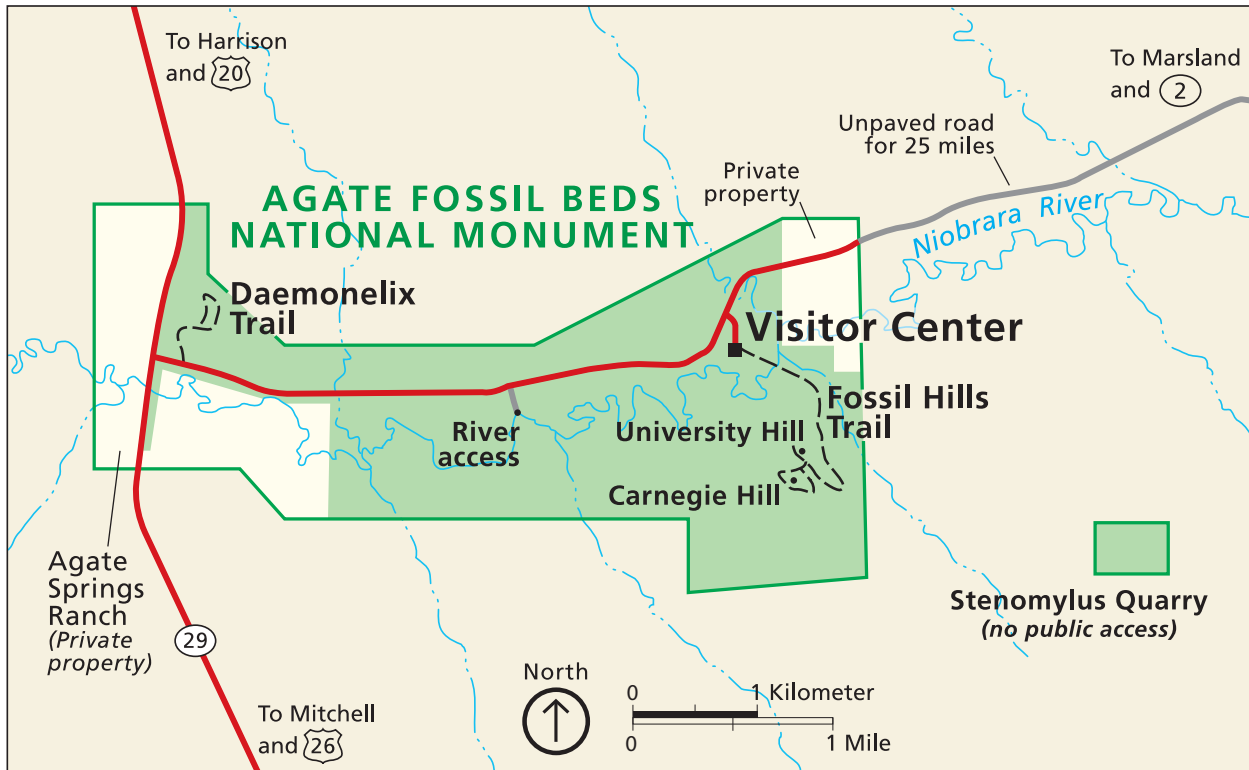


Agate Fossil Beds National Monument

Long-Range Interpretive Plan

November 2011





“Were not the early pioneers of scientific research in the West also worthy of suitable monuments erected in their honor somewhere in or about the center of their activities? If so, is not the erection of such monuments a thing worth our doing at this time? Have we no people of wealth and culture who would take pleasure in doing something of this sort – something which would not only be a credit to the donors, but which would also give pleasure and comfort to the generations to come as the centuries pass?”

James H. Cook in *Fifty Years on the Old Frontier as Cowboy, Hunter, Guide, Scout, and Ranchman*

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Introduction



Planning Background

Agate Fossil Beds National Monument (AGFO) is a 30-minute drive via Nebraska 29 from U.S. 20 at Harrison (22 miles north) or a 45-minute drive from U.S. 26 at Mitchell (34 miles south). The communities of Gering, Scottsbluff, Alliance, and Chadron, Nebraska, are all within a two-hour drive of the monument. Denver is a 4-hour+ drive.

Important Miocene fossil deposits are present in two prominent buttes south of the Niobrara River, Carnegie Hill and University Hill, along with the smaller Beardog Hill. The mammalian remains, more than 19 million years old, have been described as “the most significant discovery (of its kind) ever to be found anywhere on the face of the earth.” While excavations began over 100 years ago, scientists estimate that more than three-quarters of the fossil-bearing layer remains within Carnegie and University hills.

The monument also is associated with the history of the Agate Springs Ranch owned by James H. Cook and his wife Kate, the first Euro-Americans to discover fossil bones there in the mid 1880s. Respected by the Oglala Lakota Indians and a friend of their famous leader Red Cloud, Cook and his son Harold and their families made Agate Springs Ranch not only a friendly outpost for American Indians, but also a headquarters for paleontologists. Exhibits in the park Visitor Center interpret portions of the famous Cook Collection of American Indian artifacts.

Appendix 1 provides additional information on the importance of both the fossil finds and Agate Springs Ranch.

The landscape of Agate Fossil Beds National Monument has many facets—habitat for early animals that roamed the valleys and hills, home for High Plains tribal nations and Nebraska ranchers, fossil rich deposits for paleontologists—Agate protects one of the most complete Miocene mammal sites in the world.

Foundation



Park Legislation

On June 5, 1965, the 89th Congress approved a bill to “provide for the establishment of Agate Fossil Beds National Monument in the State of Nebraska.”

According to the legislation (Public Law 89-33), the monument was created

“to preserve for the benefit and enjoyment of present and future generations the outstanding paleontological sites known as the Agate Springs Fossil Quarries, and nearby related geological phenomena, to provide a center for continuing paleontological research and for the display and interpretation of the scientific specimens uncovered at such sites, and to facilitate the protection and exhibition of a valuable collection of Indian artifacts and relics that are representative of an important phase of Indian history.”

Department Policy on Science

Because science research and the display and interpretation of scientific specimens rests at the core of AGFO’s legislation, the most recent statement of the Department of the Interior’s policy on scientific integrity (Department Manual (305 DM 3), dated 1/28/11, provides important guidance.

3.4 Policy. The Department supports a culture of scientific and scholarly integrity. Science and scholarship play a vital role in the Department’s mission, providing one of several critical inputs to decision making on conservation and responsible development of natural resources, preservation of cultural resources, and responsibilities to tribal communities. The Department recognizes the importance of scientific and scholarly information and science and scholarship as methods for maintaining and enhancing our effectiveness and establishing credibility and value with all sectors of the public, both nationally and internationally. The Department is dedicated to preserving the integrity of the scientific and scholarly activities it conducts, and activities that are conducted on its behalf. It will not tolerate loss of integrity in the performance of scientific and scholarly activities or in the application of science and scholarship in decision making.

See appendices 2 & 3 for additional guidance on science and climate change.

Purpose & Significance

Purpose

Purpose statements normally emerge from the language that created the park. In the case of Agate Fossil Beds National Monument, the 1965 legislation is clear—Congress established the monument to:

Protect the Miocene fossils and associated quarries and related

geological phenomena.

Provide a center for continuing paleontological research and for the display and interpretation of Miocene Epoch fossils.

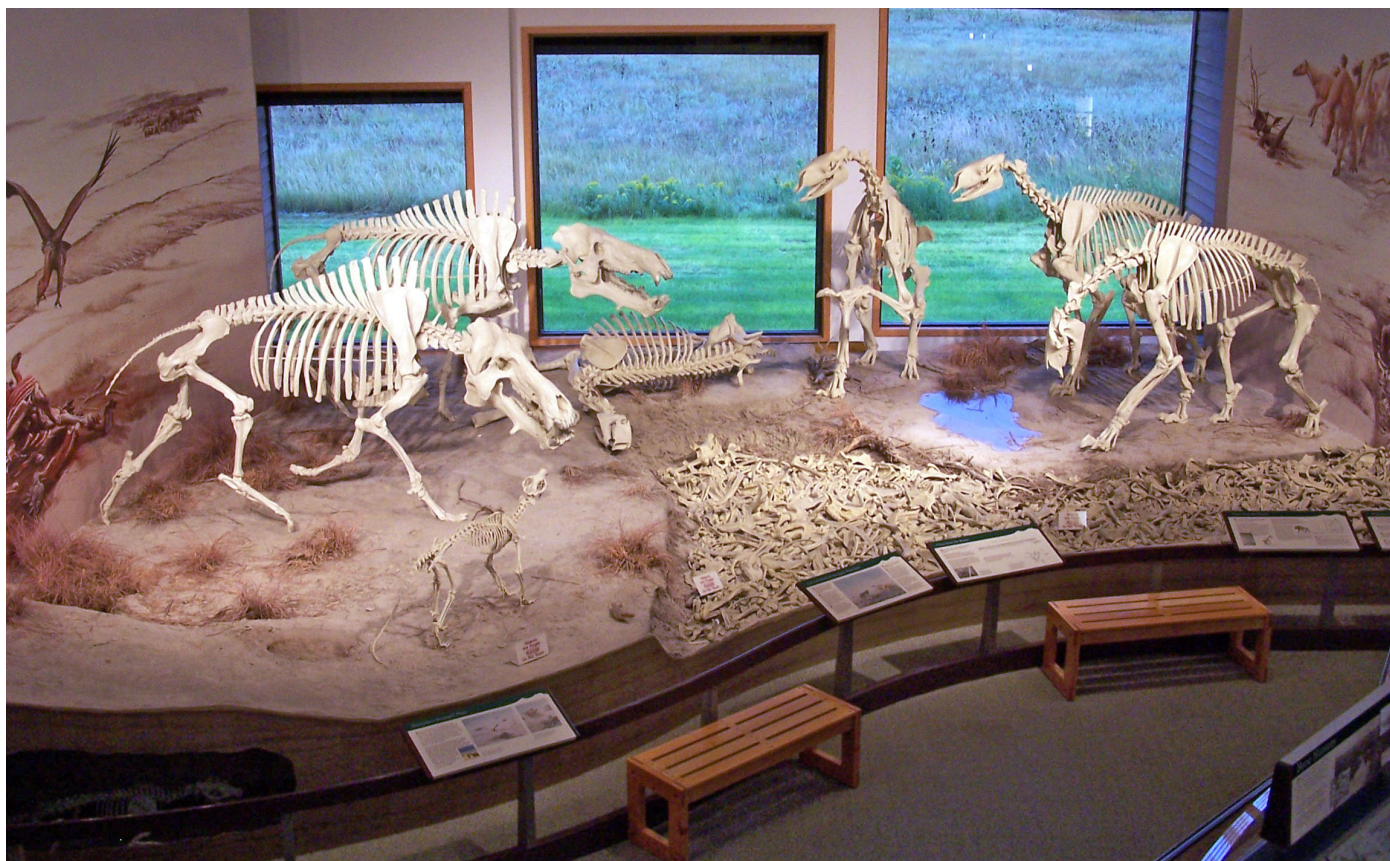
Curate, exhibit, and protect the James H. Cook-Red Cloud Native American collection.

Fossils tell stories about Earth's history

Paleontology is packed with mysteries about living things such as plants and animals that lived thousands, millions, and billions of years before the first modern humans. To solve these mysteries, paleontologists use fossils.

Fossils are the remains or traces of ancient life that are usually buried in rocks. Examples include bones, teeth, shells, leaf impressions, nests, and footprints. This evidence reveals what our planet was like long ago. Fossils also show how animals changed over time and how they are related to one another.

American Museum of Natural History, New York



Significance

Significance statements provide additional insight into the distinctiveness of each National Park Service (NPS) unit and help to place a park within its regional, national, and international contexts.

These factual statements summarize the essence of a park's resources and suggest why they are important enough to be considered a national treasure and worthy of NPS designation.

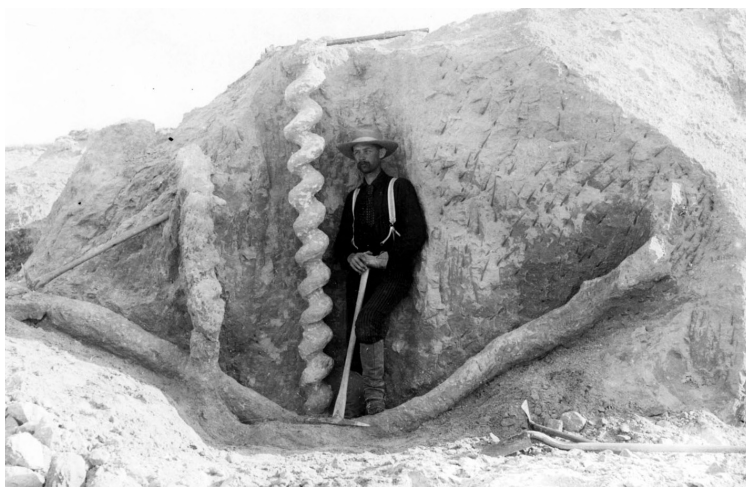
Agate Fossil Beds National Monument is nationally significant because:

The “Great Bone Bed at Agate” is world-renowned as one of the earliest discoveries that helped define the Miocene Epoch. The thousands of densely packed bones deposited into an ancient watering hole are revered for their quality of preservation and completeness.

The discovery of beardog dens in the 1980s showed the earliest known denning behavior of large carnivores. This and other important discoveries at Agate include animals new to science, as well as traces of the actual environments they lived in.

Daemonelix or “Devil’s corkscrews,” a name locally given to enormous sandstone spirals—sometimes up to 10 feet tall—fascinated and confounded the early researchers who developed several theories to explain their origin. It was later determined that these deposits were natural casts of rodent burrows.

The *Stenomylus* Quarry is unique because it contains multiple skeletons of the little gazelle-camel, one of the smallest of the North American camels. Other occurrences of *Stenomylus* are limited to isolated specimens. Many of the skeletons are fully articulated and are preserved in great detail. The site is thought to be a mass death assemblage.



The history of research at Agate provides important data needed to better understand the climate and ancient mammals that lived during the Miocene. The scientific story includes important examples of co-operation, competition, near misses, rediscovery, and detailed problem solving, all significant components of scientific understanding.

The Cook Papers provide valuable insights for future generations regarding the development of a 19th-century frontier ranch, and the discovery of the fossil quarries, and paint an intimate portrait of a long-lasting friendship between Cook and Red Cloud.

The Cook-Red Cloud Collection, an accumulation of beautiful gifts bestowed on James H. Cook and his family over many years, illustrates the Plains Indian tradition of gift giving, and is a symbol of friendship between cultures not often found in the combative settlement of the West.

The historic Bone Cabin complex illustrates the time period when Harold Cook and his wife Eleanor homesteaded 640 acres, including the Fossil Hills, in order to protect the quarries from uncontrolled development or exploitation. Their desire to work with the paleontologists led to one of the earliest efforts in fossil preservation.

University of Nebraska's F.C. Kenyon and an early Sioux County *Daemonelix*.

Primary Themes

Every national park has many stories to tell. Primary themes, however, are closely linked to a park's national significance and are so central to a park's purpose that all audiences should understand them. They occupy the core of any interpretive program and provide focus to every interpretive technique employed.

Ideally, primary themes include but reach beyond facts. They challenge audiences to explore their own intellectual and emotional connections to the park's natural and cultural resources. When a visitor wonders, "So what?," themes suggest an answer.

The thematic framework proposed for AGFO includes four storylines that flow from the park's purpose and significance statements as well as the compelling stories suggested by workshop participants.

Each theme is introduced as a topic, followed by an interpretive theme statement. Brief paragraphs provide examples of the content that falls within each storyline.

"Compelling Stories" encourage personal relationships with park resources by engaging people's hearts and minds. Interpreters use compelling stories to develop the essential and relevant stories of each park. People, as a result, learn to relate resources to larger contexts and concepts such as society, culture, and history.

Transitions

Agate Fossil Beds National Monument provides an example of how the earth has changed in appearance, over eons of geologic time, and how changing conditions altered the ways that animals and humans lived, and died, on these lands.

This theme focuses on the appearance of the park, not only how it looks

today but how and why the landscape changed over time. Interpretive programs based on this theme help audiences visualize the broad sweep as well as the intimate details of the park's landscape. Today's Nebraska prairie morphs into the savannah and grasslands of 20-23 million years ago, which transform into the forests of 35 million years ago.

Importantly, this theme includes but is not solely, or even primarily, a story of recent history. In the well-documented history of life on the upper Niobrara, many types of animals now known only by their fossil remains, survived or perished based on their ability to endure or adapt to the changing climatic and environmental conditions conjured by this theme.

Interactions

Animals, and more recently humans, have gathered for millions of years on land within the park, providing a window into the interactions of diverse species and cultural groups.

This theme, like many aspects of the park's stories, is multi-faceted.

On the one hand, it focuses on the interactions that occurred at this particular gathering place on the Nebraska landscape. It explores the interplay of species as they shared and competed for food, water, and shelter.

It also introduces the spiritual connections that native people felt for the land and the cultural contacts that took place at Agate Springs Ranch, an oasis within an austere landscape. It explains the mutual trust that developed between the Oglala Lakota people, their leader Red Cloud, and James Cook who turned his ranch into a cultural crossroads.

By extension, this story connects the Cook-Red Cloud friendship to the history of the paleontologists who, with Cook's help, probed the local fossil beds and advanced the scientific

Ogallala (sic) Camp
Minni Tanka River
May 13, 1908

Mr. James H. Cook
(Wambli Cigala)
Agate, Sioux County, Nebraska

My Old Friend:

My son Jack and his family and all of my sub chiefs that are now here to visit you – would like to see the Painting that you had made of me in your room many years ago, . . . I want you to always own and keep that picture – as long as you live, and then let your oldest son have it to keep. Then I am sure my children and their children can always go and look at the face of one of the last of the old Chiefs that lived before the white men came to take our lands and turn us from the old trails we had followed for so many hundreds of years. I will soon go to join my old friends and now on my last visit to you my friend I want to say through my nephew and interpreter Mr. Phillip Romero that in you I think my people will always find a true friend and I want them to listen to your words of counsel. I shake hands with you and put my mark on this letter to you.

Chief Red Cloud X his mark
Jack Red Cloud
Chief Red Bear X his mark
Chief Runs Above X his mark
Chief Walking Bull X his mark

Witnesses Phillip Romero, Mary E. Graham, S.C.D. Bassett

From Cook Papers, Agate Fossil Beds museum collection

process of uncovering evidence of the Miocene Epoch—the Age of Mammals.

Discovery

For more than a century, the park's lands have been the focus of scholarly inquiry, illustrating how the study of science has matured over time, and how stewardship has protected a landscape now deemed a national treasure.

This theme focuses on the process of scholarly discovery, purposeful land stewardship, and how they merged at AGFO.

The history of land stewardship can be traced to the spiritual reverence that native peoples had for the land, through the curiosity and foresight of James and Harold Cook, merging into practices and policies that now preserve the fossil beds.

The discovery and study of the park's fossil deposits, aided by the Cooks, parallels the on-going maturation of scientific inquiry generally and paleontology in particular. The quest for knowledge at AGFO

Harold Cook caravan





Early excavation by Prof. Lull of Yale University

contains elements of intellectual insight, academic competition, and professional cooperation.

A story that begins with hammer against stone high above the river valley floor echoes through the halls of museums in Washington, DC, Illinois, Michigan, New York, Pennsylvania, and Massachusetts and is expounded in the lecture notes, publications, and field trips of multiple generations of teachers, students, and now park audiences.

Meanwhile, preservation of the Cook Collection of Indian art and artifacts not only documents the friendship between James Cook and Red Cloud but also provides a three-dimensional primer on Oglala Lakota material culture.

"Paleontology is like a detective story in which new clues can shatter existing theories."

"The Fossil Hills," video shown in the park Visitor Center

Discoveries

Decades of scholarly investigation not only opened our eyes to other worlds inhabited by different-looking creatures but also revealed multiple lessons that shed light on subjects relevant to the 21st century including extinction, evolution, climate change, and cultural interaction.

This theme focuses on the discoveries that flow from scholarly investigation of the park's resources. It lights up synapses throughout our brains sparking both imagination and analysis.

The discoveries associated with this theme defy easy description. They occupy a continuum from pure fun to serious, cautionary warnings about the future.

Evolution is fundamental to the teaching of good biology and geology. The fossil record of vertebrates unequivocally supports the hypothesis that vertebrates have evolved through time, from their first records in the early Paleozoic Era about 500 million years ago to the great diversity we see in the world today. The hypothesis has been strengthened by so many independent observations of fossil sequences that it has come to be regarded as a confirmed fact, as certain as the drift of continents through time or the lawful operation of gravity.

Paleontology relies for its evidence on two different but historically related fields, biology and geology. Evolution is the central organizing principle of biology, understood as descent with modification. Evolution is equally basic to geology, because the patterns of rock formations, geomorphology, and fossil distributions in the world make no sense without the underlying process of change through time.

The Society of Vertebrate Paleontology, 2011

On one level, the work of paleontologists introduces a menagerie of animals, some vaguely familiar but others more like the products of science fiction. How was it that Nebraska once resembled the African Serengeti? We puzzle over the skeletons and full color portraits of *Moropus* and *Dinohyus*. Our minds are teased with different combinations of heads and bodies and tails and feet.

But this theme also has interpretive depth that directly addresses relevance and meaning. Interpretation of the Miocene life and environments that existed at AGFO opens the door to dialogue on the impacts of climate change on species survival, not just then but also now. Do the extinct animals discovered at AGFO have lessons for us about the limits of animal adaptation? What might *Palaeocastor*, *Moropus*, or *Stenomylus* teach us about evolution and environmental change?

Then, too, the park preserves and interprets the Cook Collection with its glimpses of cultural similarities, differences, and adaptation. Beyond the utility and beauty of the artifacts in the Cook Collection, what lessons do they reveal about cultural understanding, tolerance, and multiple world views?

Audiences

In order to design the most effective interpretive programming and employ the most effective interpretive techniques, it is critical to identify intended audiences, both existing audiences who actively use site interpretive programs AND potential audiences that well-planned interpretation might encourage.

"Individuals understand places differently depending on how they have experienced them, and this experience in turn is shaped by their

social characteristics such as age, gender, race, class, and physical condition."

David Glassberg in *Sense of History: The Place of the Past in American Life*

The term "audience" is used purposefully in this document. In the 21st century, it is common to communicate with on-site visitors as well as others who have not or cannot "visit" local sites. Increasingly, for example, the Internet is a source of both information and interpretation. While many who use their computer as a gateway to a site or region will eventually visit, that is not universally true. In addition, for reasons of time and budget, outreach and school programs might be conducted off-site. News and magazine articles as well as television and radio programs reach thousands who fall outside the technical definition of "visitor."

Snapshot of Current Audiences

In 2007 (July 7-August 3), the NPS conducted a visitor study at AGFO. During most of that period the Cook Collection in the Visitor Center was closed and the *Daemonelix* Trail was under construction. While those conditions clearly affected what on-site visitors could do, the overall snapshot of who visited the park retained validity. Highlights of the survey include:

85% of on-site visitors came in family groups.

52% were between the ages of 36-65, 14% were 66 or older, and 25% were 15 or younger.

24% of on-site visitors lived in Nebraska.

International visitors totaled 6% of visitation; 26% of those international visitors lived in Germany.

91% were visiting the park for the first time.

Although 89% had information about the park before they arrived, only 22% obtained information via word of mouth.

69% said they came to the park to see fossils; 78% said they were unaware of the Cook Collection.

Additional information about on-site visitors includes:

Current annual visitation stands at around 11,500; most visit between Memorial Day and Labor Day.

Roughly 400-500 visitors are students/teachers, mostly in elementary or middle school classes with a small number of home school groups.

The park does have several niche audiences—those interested in fossils and fossil research, those who “collect” national parks, those focused on Indians and the Cook Collection, travelers who prefer scenic “blue highways,” and travelers along the “Fossil Freeway” (a trademarked travel route joining several fossil sites in Nebraska/South Dakota).

The average length of stay in the park is around two hours.

Some summer travelers are “drive through” rather than destination visitors, on their way to other locations such as Denver, the Black Hills, and Yellowstone.

Targeted Audiences

This section of the interpretive plan recognizes that interpretive techniques and audiences are inter-related—some interpretive tools are better adapted to, or appeal to, particular audiences. So, although all audiences are welcome and invited to participate in the park’s interpretive programs, discussions suggest that four audiences should receive specific attention during the first five years of this plan, and that planning should develop interpretive media with direct appeal to the following groups:

Youth and education groups including college classes, local schools, summer camps, scout and cultural center groups.

Families.

“Local” audiences and opinion leaders from towns within easy day-trip range, particularly Scottsbluff.

Virtual audiences who connect with the park online including tech savvy on-site visitors who want more digital access to information while visiting.

Future targeted audiences (perhaps 5-10 years from 2011) might include bus groups and niche groups like Road Scholars (formerly Elder Hostel) participants.

Accessibility and Audiences

The NPS is committed to developing a comprehensive strategy to provide people with disabilities equal access to all programs, activities, services, and facilities. As part of that effort, Harpers Ferry Center developed

Founders Day workshop



“Programmatic Accessibility Guidelines for National Park Service Interpretive Media” and made them and other resources available.

See www.nps.gov/hfc/accessibility/index.htm.

Staff, partners, and media contractors must consult these guidelines as the park revises or rehabilitates existing interpretive programming, and develops new interpretive media.

Audience Experiences

While primary themes focus on what audiences will learn as a result of interpretive programs and media, audience experiences explore what audiences will do. What types of activities will reinforce park themes? How might the design of interpretive programs and media invite audience involvement and, as a result, reinforce key aspects of the park’s stories? How can interpretation use the powerful impact of hands-on, sensory activity to send audiences home with lasting memories? How can landscapes bolster audience understanding of the history and the spirituality associated with the land? How can interpretation provide audiences with opportunities to find personal meaning in the monument’s resources and associated stories and personalities?

John Falk and Lynn Dierking, in *The Museum Experience*, argue that visitors are strongly influenced by the physical aspects of museums, including architecture, ambience, smell, sound, and the “feel of the place.”

A balanced interpretive program should make it a high priority to offer opportunities that:

- Explain visiting options (including the value of stopping at the park’s Visitor Center) and introduce the park’s primary themes.



Special park event

Encourage audiences to see the park’s “real” things, to get outside the Visitor Center and onto the park’s trails, to develop abilities to “read” landscapes on their own, and to visualize how they have changed over time.

Encourage interaction and participation that engages audiences mentally and perhaps physically in some facet of scholarly activity related to the park’s resources.

Encourage audiences to look at the park from multiple perspectives, appreciate the history of cultural interaction represented by the park’s resources, and connect with the spiritual or contemplative atmosphere of the park.

Other experiences might involve:

- Drawing connections between AGFO and other paleontology sites.

- Using emerging technologies, particularly media that enrich a park visit, on a typical day, with activities recorded at other times and even in other places—on-site digs, or online dialogue with scientists/students working in a distant laboratory, for example.



Interpretation on the trail

"Out in the field, fossils do not simply leap out of the rocks or lie there gleaming and pristine, waiting to be picked up. They have to be picked out in a background of a thousand confusing shapes, colors, and textures. A fossil collector with 'the eye' will spot the potential in a slight curve to a layer of rock or a trifling discoloration. Where any other mortal would simply walk by, the person with the eye finds the treasure." Keith Thomson in *The Legacy of the Mastodon*

The Park in 2011

Most visitors come to AGFO to find out about fossils, but others want to learn about pioneer rancher James Cook and his friendship with the Plains Indian tribes. In either case, they also get a glimpse of a scenic, three-mile stretch of the upper Niobrara River Valley within a remnant of the vast, short-grass prairie.

Park staff provided the following summary and assessment of interpretation as of 2011.

Visitor Center/Museum

The Visitor Center has an information desk, sales area, children's discovery area, film, and exhibits. It is the main attraction at Agate Fossil Beds. It is open year round, except for the three major holidays, from 8-4, extended to 6 pm in the summer.

Exhibits are split into two main segments, one dealing with Early Miocene fossil discoveries and the other focusing on the American Indian gifts James Cook received from his Oglala Lakota and Cheyenne friends.

Fossil/Paleontology Exhibits

A large, life-size diorama of a Miocene waterhole during a prolonged and severe regional drought features dramatic casts of the park's four primary fossil animals posed in a death scene. Three (the *Dinohyus*, *Moropus*, and beardog) are mounted intact in skeletal form, while the rhino, *Menoceras*, is represented in the jumbled bone bed and fleshed out in the mural depiction. The diorama dominates the main room before three large windows overlooking the actual fossil discovery sites in the distance, creating a sense of "then and now." A portable, two-dimensional cutout of a skeletal rhino is behind the information desk for easy reference. Eleven supporting exhibits focus on the historic context and scientific process of paleontology by using case studies from discoveries at the park, and include unusual fossil animals found within the park and interactive activities.

Paleontology display titles include: Nebraska's Serengeti Plain; Life and Death at the Agate Waterhole; Clues from the Rocks; Beardogs; Fossil Rhino Tracks; Ancient Camels; Mystery of the *Daemonelix*; A Slice Through Time; Changing Science; Take a Closer Look; and Fossil Clues.

An audiovisual exhibit allows visitors to "hike" the park's two trails while

watching and listening to a scientist narrator. At each stop on the two trails, the audience has an opportunity to learn more by activating a “closer look” feature in the exhibit. The media was recently migrated and remounted onto a more modern platform from the original Apple Computer CD format installed in 1996.

A separate exhibit contains herbarium sheets identifying many of the common prairie plants of the area.

Agate Springs Ranch/Cook Collection Exhibits

Exhibits related to James Cook’s Agate Springs Ranch conclude with a dramatic gallery that focuses on many of the gifts Cook received from his Indian visitors. Native songs play in the background. A few items, mostly guns, are still awaiting the fabrication of improved, secure mounts before being re-exhibited.

Story titles in the Cook Gallery include: Agate Springs Ranch: A Gathering Place on the Niobrara; James H. Cook: Frontiersman, Rancher, Collector, and Host; Gift Giving: A Lakota Tradition; A Special Gift: American Horse’s War Club; Lakota Life in Transition; Indian Encampments at Agate Springs Ranch; The Battle of Little Big Horn; and Cook’s Den: Agate’s First Museum.

American Horse’s club is on loan to the Smithsonian National Museum of the American Indian for a several year special exhibit on the “Indian Horse Culture.”

This gallery also offers a changing exhibit case and a timeline “Winter Count” based on the Plains Indian method of using painted symbols on an animal hide to illustrate historic events.

The changing exhibit case was recently redesigned and should prove easier to service in the future as a showcase for varying untold themes, stories, and objects from the museum collections.



Park Visitor Center

Administrative Space

The building contains park offices, conference room, kitchen, and balcony that are occasionally used for special events.

Theater

A theater seating around 60 comfortably (legal capacity 95) features six enlarged photographs of James Cook and early scientists at the fossil beds, and is a useful gathering place for orienting visitors and giving talks.

A separate booth allows easy projection of slides and other media into the theater.

The park film, “The Fossil Hills,” is 12 minutes long and focuses on paleontology, current scientific theories, and the history of the fossil discoveries. It purposefully does not cover the park’s other interpretive stories. The film is contained on a laser disk and projected from an overhead mounted projector that was recently upgraded. The media source hardware is scheduled for upgrading and replacement, while maintaining some flexibility for multiple input types, past, present, and future.

An older slide show with audio track is available (although hardly ever used) and gives an overview of all of the park’s stories.



Agate fossils displayed at the American Museum of Natural History in New York

The Fossil Quarries

The fossils for which the park is known are contained in a few major concentrations—Carnegie and University hills (The Fossil Hills) with the nearby carnivore dens of Beardog Hill, the *Daemonelix* area, and the *Stenomylus* Quarry. The low, mounded hill to the north of the Fossil Hills, variously known as North Ridge, Quarry A, or Amherst Point, also is linked to the initial fossil discovery story, and contains an important ash bed used in dating the fossils. Trails lead to the *Daemonelix* and Fossil Hills areas.

The *Stenomylus* Quarry is managed as a scientific preserve and is not open to the public.

Isolated fossils have been found in a few other areas and a conspicuous ash deposit that helps date the quarries is visible at a midway point along River Road.

Currently (June 2011), there is no ongoing excavation at any of the fossil sites.

Trails

Fossil Hills

The concrete Fossil Hills Trail leaves from the Visitor Center and is 2.7

miles roundtrip. It was designed with accessibility guidelines (a few short stretches of up to 8% grade) in mind, and leads visitors to actual quarry sites from which fossils were recovered over the years. The hard surface walk to the hills can be extended to a 3.5-mile loop that includes the historic Bone Cabin by connecting with a mown access road and grass trail.

Ten wayside exhibits orient visitors, discuss the marsh and river, and point out the history of the fossil excavations and the importance of paleontological discoveries from 1904 to 1990. Wayside titles include: Combating Invader Plants; Wetlands; Quarry A; University Hill Fossils; Footprints in the Mud (including an actual track cross-section); Historic Excavations; *Menoceras*; *Chalicotheres*; and Beardog.

There are currently no exhibits showing actual fossils along the trail, which is a disappointment to many visitors who expect it. Two exhibit cases from the 1980s were removed in the mid-1990s because of vandalism, danger from potential rockfall, and the deterioration of some of the fossils on display. Numerous actual fossil remnants, both embedded and loose on the surface, are abundant around the historic excavation sites for those knowledgeable about such things, or as pointed out on ranger-led hikes.

Daemonelix

The crushed rock *Daemonelix* Trail is a one-mile round trip located near the River Road/State Highway 29 intersection. It features the fossilized corkscrew-like burrows of the ancient beaver *Palaeocastor*.

Two large cases show actual fossils. Eight wayside exhibits orient the visitor, and point out the fossils and other geologic features that provide essential clues to Miocene climate and environments. Two additional waysides, on a spur at the beginning of the trail, discuss the history of the Agate Springs

Ranch (and the American Indians who visited and camped nearby) located within view.

Titles of the trail's exhibits include: Ancient Dunes; A Slice Through Time; *Daemonelix* (scientific name for the burrow); The Lay of the Land; Rock Records; Split *Daemonelix*; Fossil Soils; Agate Springs Ranch; and Guests From Pine Ridge (Reservation).

On a negative note, drawing attention to certain geologic features with way-side exhibits seems to have attracted new social trails and some tampering with fossil features.

Plant Identifiers

Staff periodically set out metal and plastic plant identification markers on both trails to highlight common and blooming plants along the way.

Loop Trail

A new small loop trail near the beginning of the Fossil Hills Trail has been constructed in anticipation of a proposed wayside exhibit about American Indian perspectives on the landscape (and potentially a semi-covered dance or gathering area).

River Road Pulloff

As vehicles approach the Visitor Center from the main access to the west, a road pull-off offers a view of the river valley, fossil hills in the distance, and historic Bone Cabin.

This pulloff has two wayside exhibits titled: Bone Cabin and Prairie. They interpret the short-grass prairie ecosystem and the history of the humble homestead cabin, on the other side of the river, that later served as the important headquarters for fossil excavation.

Bone Cabin Complex and Hoffman House

Other than the Agate Springs Ranch, which is privately owned but still included within the established



Bone Cabin

boundaries of the park, Harold Cook's modest homestead structure with its fence and windmill, and the nearby 1950s Hoffman house (home of James Cook's granddaughter) are the main older properties located in the otherwise very open expanse of the park.

The exterior of the homestead (later known as "Bone Cabin") was restored in 1996 to match its early 1900s appearance and is accessible by mown trail from the Fossil Hills Trail. The Bone Cabin is managed as part of the visual landscape.

The Hoffman House with its prominent trees and shelterbelt, was originally slated to be removed by NPS, but was retained as park housing and for other purposes. Since the addition of new housing in the 1990s, it has been used off and on and will be reevaluated via the GMP process (see Appendix 4 for more information on the GMP).

Red Cloud Campsite

Opposite the Agate Springs Ranch on State Highway 29 is a narrow strip of land set aside as one of the main locations where American Indians camped when they visited Cook.



Wayside exhibits at University Hill

A wayside exhibit near the start of the *Daemonelix* Trail interprets the campsite.

Archeological Features

The use of the river valley through time is reflected in a thin and inconspicuous veneer of archeological sites marking early campsites and trails used by indigenous peoples and later traders/explorers. A Lakota Indian story is associated with certain fossil deposits and rock cairns (currently being reviewed and questioned as needing additional verification), and there are the remains of at least one unsuccessful homestead within the park.

Fishing Access Parking Area

Located in the middle portion of the park along River Road, a short mown side road leads to a parking lot close to the Niobrara River. It was originally created in the 1970s to provide an access point for river anglers. Fish have not been actively stocked in the park for many years because of concerns about introducing exotic fish into the river ecosystem and changing state and national park attitudes toward this form of recreation. The current nature of the fishery is currently being studied, but does not appear very active.

Library

The park's library includes various periodicals, a vertical file of reprints and copies, and approximately 1,000 books (topics include general park issues, American Indian culture, geology and paleontology, grassland ecosystems, Western and ranching history). The cooperating association contributes new books to the library from review copies or by purchase upon request by the monument.

Museum Collection

The Cook family collection forms the basis of the park's museum holdings. It includes personal items as well as many unique period photographs, a vast family archive of correspondence and published and unpublished manuscripts, ranch records and ephemera, over 500 American Indian "gifts," archeological, fossil, and other natural history specimens, and the Cooks' private libraries of scientific books, reprints, and other items covering their many interests and overlapping with the park's themes.

Fossils gathered from 1980s excavations are housed in a state-of-the-art museum collection facility at the University of Nebraska, Lincoln. Fossils gathered before the establishment of the park are housed and exhibited in museums in a variety of locations.

Interpretive Collection

Via purchase or donation the park has an interpretive collection that includes contemporary American Indian crafts, many products of the bison (buffalo), fossil examples (both real and cast), and other interpretive models and props. In addition, surface natural history finds (snake skins, seed pods, owl pellets) are kept for consumptive short-term use as "touchable" items, split between a front desk display area and a nearby, self-help table and chairs with magnifier (discovery center).

Photographic Images

A park slide collection, an administrative photo file with some copies of historic and original more contemporary subjects, and scattered digital images in individual computers and on the park network's public (P) drive are available for use in digital or slide programs.

Personal Services

Visitor Center desk staff offer orientation and information year round and give extended interpretive programs, such as guided walks and talks of varying lengths, primarily in the summer when seasonal staff are hired. In a typical summer, two or three such staff may be hired at the GS-2 to GS-5 level, depending on whether student hires are made. Special or school programs also are offered in the spring and fall on a case-by-case basis as staffing allows.

Staffing consists of one or two people per day year round and additional persons in the summer to handle programs and extended hours.

Supervision of the interpretive program has varied in the past between the superintendent, the museum curator, and a split duty law enforcement ranger. Another staff member currently temporarily manages interpretation until the chief of interpretation position is filled. In a small park like Agate most disciplines tend to back up, assist, or perform other specialties.

Walks and Talks

During the summer and upon request, staff give one- to two-hour guided walks of the Fossil Hills and *Daemoneelix* trails focusing on paleontology and natural history. They also present a program in the theater focusing on American Indian culture using contemporary craft items and following up with a guided discussion of the Winter Count exhibit and other items on display in the museum.

Attendance at such programs usually is small, reflecting low visitation and some visitors' lack of time as they travel to other destinations on a tight schedule.

Theater Introduction

Staff give a short introduction (a welcome with interpretive message) before the 12-minute park film, which most visitors see. Some staff present the park's stories in ways that provoke listeners to re-evaluate prevalent attitudes about such things as geologic time, climate change, and cultural assimilation.

School Groups

Four to five hundred students per year participate in field trips from local schools, mostly from 25 to 100 miles away. They come to Agate primarily in the late spring and occasionally in the fall. During the summer months, some schools travel from much farther away. Grades vary from 2nd to 8th. Leaders usually request a combination of a guided walk and Indian program separated by lunch and spend three-four hours on site. Programs may support curriculum standards of the classes involved, depending on the age of the group.

A "Parks as Classrooms" project involved working with local schools

Inside the Visitor Center





Parade float

to create curriculum-based science modules (bird ecology, weather) and follow up with a Science Day at the park. This project evolved out of an educational traveling trunk idea with input from a retired volunteer geology professor from Carleton College. The trunk project remains to be finished with specific lesson plans to accompany the educational materials.

For several years, the park also has participated as a co-sponsor with other regional agencies in a week-long summer science camp on and off site.

Special Events

Since 1999, based on the tradition of Agate Springs Ranch as a historic gathering place and the modern practice established by James Cook's granddaughter while residing at the ranch in the 1990's, the park hosts a cultural and recreational gathering on the day after Christmas.

Wildflower walks in early June coincide with Nebraska Wildflower Week.

Cultural Demonstrators/Volunteers

On long weekends in the summer, volunteer American Indian artists from the region demonstrate their artwork/crafts in the Visitor Center. They receive a small reimbursement, stay in park housing, and sell their work to the public.

Other volunteers occasionally work as interpreters for a few months at a time or give special one-time programs and/or create other products.

Park housing is usually available, as are two trailer pads, to facilitate volunteerism.

Outreach

The park participates in events off site, ranging from in classroom school talks, to booths at fairs and career days, to floats in parades, to Road Scholar and teacher symposia, to science camps, regional geology field trips, or American Indian gatherings.

In partnership with the restored Midwest Theater in Scottsbluff, the park initiated one such endeavor. A Junior Ranger careers presentation was staged several years in a row, and used a multi-media presentation and skits to educate, encourage stewardship, and recruit future employees.

The park also helped create and continues to participate in an intertribal pow-wow at nearby Ft. Robinson State Park.

Park staff routinely give talks to local community, fraternal, and other groups, and participate in regional tourism and educational initiatives. One such initiative, the "Fossil Freeway," links fossil sites throughout a multi-state region to better attract the public and provide meaningful interpretation. A website and brochures have been created and further cooperative endeavors contemplated.

Two other ongoing or past programs

include a partnership with Nebraska State Parks to create a High Plains Science Adventure Camp, and with the Boys and Girls Club of Chadron for a project called “The Kids Diggin’ the Fossil Freeway.”

Junior Rangers

A Junior Ranger Activity booklet based on the exhibits in the Visitor Center and outdoor activities has been developed and is advertised at the front desk. The booklet was considerably transformed and improved in 2010 with the help of a Junior Ranger Ambassador grant.

Publications

Several free site bulletins have been created to satisfy visitor curiosity and augment their understanding. Topics include: Canada Thistle Control (exotic weed management), Ranching on the High Plains, The Bone Cabin, Tipis of Agate, The Running Water Winter Count (American Indian storytelling), and a Plant List. A rack near the front desk contains these items.

The park brochure also is available and includes one side titled “The Age of Mammals” that is shared with several other NPS fossil parks.

The park has an official NPS handbook that includes full color illustrations of many of the animals associated with fossil finds in the park, but is somewhat outdated.

Both park trails also have a self-guided trail guide.

Website

The park website conforms to NPS guidelines, but does not offer much in the way of expanded information, links, or interpretation of park primary themes.

The park has approved one virtual Earth Cache, part of the GeoCache system and located on the *Daemonelix* Trail.



Successful junior ranger

Cooperating Association

The Oregon Trail Museum Association (OTMA) operates a bookstore/sales operation, staffed by park employees, in the Visitor Center.

Inventory includes several key items useful to visitors who want more detailed information and park specific mementos. Of particular note is the park handbook with an excellent section on ancient animal life, and several books or booklets written by the Cook family about the Agate Springs Ranch and James Cook’s relations with his American Indian friends. Cook’s own book, *Fifty Years on the Old Frontier*, also is still being published, primarily due to demand from park visitors. His granddaughter, Dorothy Cook Meade also collaborated with the park in producing a valuable memoir about her experiences with the Cook Collection, featuring many photos and stories. The association offers books dealing with prehistoric mammals, a surprise for visitors who are used to items focused on dinosaurs, and several books about famous American Indian leaders, including Red Cloud and Crazy Horse.

Interpretive Issues

In order to develop the most effective interpretive programs and media, park staff must address issues that are closely linked to providing desired audience experiences.

During the initial scoping trip for this LRIP, several issues related to both personal and non-personal programming surfaced. They included the need to address:

Park identity (particularly in local communities), audience expectations, and explanation of visiting options.

The park environment—distance from population centers, amenities, teleconnections, weather, cold or heat, and wind.

Field experiences that match audience investment of time and effort, enriched on-site experiences, protected outdoor exhibits, and additional excavations.

Development of background materials and data that can be used to enrich interpretive media, particularly online and educational programming.

Staffing and training, putting expertise in place to accomplish interpretive goals, use of personal services.

Limited partnerships, volunteers, and friends.

Interpretive Planning Goals

Since the LRIP is a 5-10 year document, and since staff and budget always have limits, it is important to focus on the park's most pressing interpretive needs. Sensitive to that reality, park staff reviewed the contents of the Foundation section of the plan and identified several goals for the LRIP to address.

This LRIP will provide specific recommendations on how to:

Enhance efforts to help all audiences understand visiting options and form an accurate picture of the park's resources and associated stories as embodied in its primary themes, and what the park offers.

Expand efforts to communicate with "local" audiences including the hospitality industry and the opinion leaders (civic and political leaders, and newspapers) in regional towns.

Enhance interpretation that appeals to students, youth, and families.

Offer additional opportunities to see "real" things, use the park's trails, and develop a sense of place.

Offer additional opportunities to experience park-related scholarly activity and experience the park from multiple points of view.

Explore ways to use emerging technologies including the Internet to communicate primary themes, provide desired experiences, and enable distant audiences to find personal meanings in the resources and stories of the monument.

Increase efforts to challenge audiences to consider the implications that park themes may have for the 21st century.

Analyze staffing to ensure the best use of people and develop training that will help staff address park-related themes—including associated controversies—and new technologies.

Explore ways to expand partnerships and strengthen ties with the park's cooperating association.

“One of the most precious values of the national parks is their ability to teach us about ourselves and how we relate to the natural world. This important role may prove invaluable in the near future as we strive to understand and adapt to a changing climate”

Jon Jarvis, NPS Director, October 28, 2009

See Appendix 3 and <http://www.nps.gov/climatechange> for more on the NPS response to climate change



Daemonelix exhibit

Actions



Introduction

Part 2 of the LRIP describes the actions that park staff and partners will take to build on The Foundation, described in Part 1, during the next 5-10 years.

This plan is intended to be a dynamic document that responds to changing conditions. Staff will revisit the plan on an annual basis and make adjustments, remove accomplished tasks, and identify new projects for action.

Since viable plans need to be nimble and responsive to changing conditions, staff also can and should take advantage of new opportunities as they arise. No plan can foresee every eventuality. This LRIP provides a framework for considering other interpretive proposals as they emerge. Part 1 should function as a yardstick against which new ideas are measured—does a new idea reach targeted audiences, address an identified issue, offer a desired audience experience, etc.? When properly used, Part 1 provides priorities that can help move interpretive programming in a consistent direction despite changing times.

Each action item included in Part 2 is bulleted in the plan narrative and listed in implementation charts near the end of this document. Those charts identify the fiscal year or years when progress is expected.

Some of the bulleted items are dependent on funding not in hand. Those actions will be noted in the implementation charts. If other actions can be completed only if additional staffing becomes available, they also will be identified on the charts. For example, several projects have been delayed in the past and will continue to be postponed until the park has a chief of interpretation. Other projects require the input and oversight of a paleontologist.

Organization of Part 2

Although the themes, audiences, audience experiences, and issues described in Part 1 suggest many ways to focus interpretive programming for the next several years, Part 2 is organized to reflect the priorities identified by park staff during the project's scoping trip.

Specifically, this part of the plan focuses on actions related to the park's desire to address each of the planning goals identified at the end of Part 1.

Actions to enhance audience understanding of options

Many audiences are confused or unsure about what AGFO has to offer. They cannot describe the park's stories accurately or at all. As a consequence, potential audiences do not make the effort to visit, and some who decide to make the trip arrive with expectations that do not match reality. In order to heighten audience understanding of the park and sharpen expectations, staff and partners will:

- Develop clear statements of enticement, sound bites that explain why a trip to AGFO is worthwhile. Make sure that the journey to the park, through iconic Nebraska ranchland, is presented positively. Provide materials that also explain how to get to and into the park, find and use park facilities (particularly park trails), enrich the out-of-doors experiences, establish a sense of place, and connect AGFO to other sites in the region.
- Reassess distribution policy and venues for promotional brochures and the park's rack card. For example, use the Scottsbluff airport to distribute park materials and offer photos for display on waiting room walls.
- Reassess the park's official brochure and be prepared to recommend changes at the time

of reprint. Does the text capture the park's primary themes? Do the images, including the primary image, capture what the park is about and what it has to offer audiences?

- Explore revising and updating the park's official handbook. Several interpretive objectives could be achieved with an updated publication that provides basic park information and interpretation. A revised or new publication(s) would help define what the park has to offer, help readers grasp the park's primary themes, illustrate the park's stories by showing ancient animals and landscapes, and connect the park to scholarly activity and related fossil sites.

The first step in this action item requires a review of the current handbook—how would a revision be different from the existing book? What needs to be changed? Are there inaccuracies in the text or illustrations? Would a revised handbook address the Cook Collection and American Indian stories in greater detail? Could the handbook be created at an affordable price that the public would buy?

Park staff, working in tandem with the cooperating association, also should consider other options—perhaps a book or books published by an academic press or by a publisher like KC Publications (Story Behind the Scenery series).

- Review and revise the park's website with an interpretive approach in mind. Does the site introduce a sense of adventure? Do the images on the website parallel the park's themes, illustrate the park's most compelling features, and capture the range of activities that await on-site visitors? Provide opportunities for

viewers to download information and podcasts that illustrate visitor experiences.

- Add possible itineraries to the website including links to partner sites that could extend and enrich a visit to the area.
- Work with partners to sponsor advertising that entices audiences and helps to shape accurate expectations.

Actions to reach out to local audiences

Workshop participants felt that cooperation among the national parks in the region would benefit each of the units separately. They also felt that local audiences to the north and south of the park, as well as larger populations to the west, along the Front Range, could be attracted to the park with more targeted information and outreach. In order to expand outreach and pursue the suggestions of workshop participants, park staff and partners will:

- Design and offer “familiarization” tours of the park, sponsor open houses for civic groups, and expand personal contacts with opinion leaders.
- Pursue the addition of AGFO to the promotional video produced by the Scottsbluff Chamber of Commerce.
- Develop a traveling exhibit about the park. Begin by discussing how and where the exhibit will be used. Approach those who control possible venues to assess interest, develop an exhibit circulation plan, prepare and produce the exhibit. Request the assistance of the regional media specialist for help with design.
- Expand the park's calendar of special events, specifically events that have broad appeal to local

audiences but that remain focused on park themes. Celebrate National Fossil Day. Build on the idea that the Cooks' ranch was a traditional gathering place and crossroads. Assess and perhaps continue night sky programs. Videotape and photograph as many activities as possible so they can be shared with audiences at other times and via a range of interpretive media.

Actions to enhance interpretation for students, youth, and families

The park's stories have particular appeal to young audiences and families. The out of doors, Indians, and fossils each can be a magnet for school and family audiences looking for worthwhile activities. In order to reach out to younger audiences, park staff and partners will:

- Develop a parent's guide that will help families connect with park stories and resources via directed and self-directed activities. This guide will enlist adults as facilitators and provide them with useful tools that will build upon the social aspect of family and group visits.
- Connect the park's collection of hands-on items with artifacts in the Cook Collection. Make the touchable items more accessible and find a display location that is closer to the Indian exhibit area.
- Develop new family-oriented activities that incorporate Indian songs, games, and stories. Consider using outside locations like the tipis, for example, or the picnic shelters. Design a program that encourages families to create their own "winter count." These activities will require close contact and dialogue with Indian educators and leaders.
- Work with local educators to develop a clear set of educational goals that benefit both the schools and the NPS. Identify links to educational standards, grade level targets, and existing curriculum. Develop meaningful pre- and post-visit components including tools for evaluation. Ensure that educational goals advance the purpose of the park by focusing on the process of science and discovery.
- Develop a strategy to reach out to youth groups—scouts, church groups, camps, 4-H, etc. Match the missions of partners to the youth initiatives pursued by the NPS.
- Develop a strategy specifically for outreach to Indian youth. Work with group and tribal leaders to identify appropriate objectives. Approach projects with the understanding that Indian ways of life are "living cultures" to be nurtured and preserved. Develop a relationship with the Red Cloud Indian School and with the Oglala Lakota College on the Pine Ridge Reservation.
- Contact schools and colleges to design service-learning projects and recruit interns.



Hide depicting the Battle of Greasy Grass (Little Bighorn)

- Define desired outcomes for a Teacher-Ranger-Teacher position and seek funding.
- Work with partners or other parks to develop a distance-learning program.
- Seek a partner(s) for a summer paleontology camp. Continue the existing program, but develop a more park-focused program.
- Continue and promote the existing “sleep with fossils” program that allows groups to overnight in the Visitor Center. Develop interpretive and educational experiences as part of this program. Sustain and expand contacts with youth groups, and then consider expanding the program to family groups.
- Expand the cultural arts program that brings Indian artists and performers to the park. Reach out to tribal leaders for additional input. Publicize in tribal media. Eventually work with tribal partners to plan an annual American Indian arts festival at the park.
- Encourage the cooperating association to make connections

to local book clubs and libraries and develop materials that focus reader attention on park-specific publications.

- Work with educational partners to discuss and develop useful educational kits that can be loaned for off-site use. Identify contents that parallel curriculum and develop loan policies that are practical and easy for educators to use.
- Work with local partners to develop a new Junior Ranger program that links the park with theme-related sites nearby and in neighboring states.

Actions that link audiences to “real” things and develop a sense of place

The park’s Visitor Center is so well done that some visitors conclude that they never need to use the park’s trails, see the fossil sites, and experience the park landscapes away from human development. Others who hope to see fossils in place are disappointed by the subtlety of what they find along the trails. Both realities make it important for interior exhibits to encourage more exploration out of doors. In order to heighten the sense of place and connect visitors with “real” things, park staff and partners will:

- Experiment with a new mix of formal, informal, and desk duty assignments for interpretive staff. Use staff time in ways that maximize direct contact with visitors. Are scheduled tours the best way to encourage staff-audience interaction on the trails? Would other types of personal contact—informal roving contacts, short interpretive programs, scientific and cultural demonstrations, special events—help to connect on-site visitors with park landscapes and result in a heightened sense of place?

Night Sky Program



Consider whether the current configuration of the information desk makes the best use of space. On balance, does the desk enhance or discourage visitor contact?

- Since active field digs encourage visitation, work with paleontologists and appropriate NPS resource managers to develop a list of sites with dig potential and describe actions needed to conduct additional excavations.
- In coordination with the General Management Plan process, develop a strategy for additional digs in the park including where they would be held, who would conduct them, and what the potential objectives (both scientific and interpretive) would be. Funding and staffing may require creative solutions that make use of academic partners and cooperative agreements.
- Install an exhibit along the trail, in an appropriate place, that includes cast replica bones as they might have been found during a dig. This exhibit would be constructed using durable materials and should be removable so that it can be stored in winter. It should be designed so that it helps connect interior exhibits with the field locations of the discoveries.
- Integrate American Indian stories into field interpretation, particularly traditions associated with the ancient animals, with the river, with the night sky, and with the native plants. Provide opportunities for American Indians to speak for themselves on these topics via film, audio, electronic technology, or in-person presentations.
- Develop take along interpretive programs that use new technologies (smartphones, iPads, GPS, etc.) that can be enhanced with additional written, audio,



2008 Founders Day

and video materials. While the remoteness of the park and limited cell access might limit immediate use of some technologies, other options exist or will be feasible during the life of this plan. The park should begin planning content in order to be ready when funding becomes available and communication infrastructure is in place.

- Work with the regional office interpretive media specialist to complete the proposal for new wayside trail exhibits and kiosks adjacent to the park's parking lots. This project also could help identify locations, stories, and materials that could be used in the expanded take along program described above. Where appropriate, incorporate emerging interpretive technology and social media opportunities.
- Develop an activity that encourages visitors to evaluate replica bones and try to assemble them into a mammal skeleton.

Actions that link audiences with scholarly activity

Since continuing research rests at the core of the park's purpose, interpretation of scholarly activity should play an important role in

AGFO's interpretive program. Several actions will enhance this facet of interpretation, although some cannot take place without the input and supervision of a trained paleontologist (see the implementation charts).

- Create a space for a changing exhibit area that will be used to highlight current research at the park or on park-related topics, post news related to paleontology or tribal events, share up-to-date information on topics like climate change.
- Video record paleontologists talking about their work and discoveries in the park. Integrate these recordings into new interpretive programming or use as short programs that can be shown in the park's theater.
- Create and develop an on-going strategy to conduct and oversee a fossil preparation demonstration. Initially, this program could be conducted by a trained fossil preparator and offered during a special event. Long term, the program might be offered on an on-going basis if adequate professional supervision is available. It would supplement interpretation of field digs with a glimpse at the laboratory work that follows.
- Work with scholar partners to design a program that connects

micro-paleontological research conducted in anthills in the park with real and potential discoveries.

- With the coordination and oversight of NPS resource managers and paleontologists, open a section of the South Excavation area for a short period during the season. This project would serve not only a scholarly purpose—assess how well previously excavated areas are weathering—but would allow visitors to see an active dig site.
- Define tasks that can be undertaken by interns and actively recruit students for those jobs. For example, submit a proposal to GeoCorps, a short-term employment program sponsored by the Geological Society of America.
- Develop a way to illustrate the many places where fossils from the park currently are displayed. This might include technology (enter a postal code to find the closest AGFO fossil in a public collection) or low tech (a list or map).
- Ask the cooperating association to explore purchase or reproduction of the Museum Notes article on the park written by Bob Hunt (Death at a 19 Million Year-old Waterhole).

Summer field institute at Hudson-Meng



Actions that use emerging technologies

Electronic technologies have the potential to alter and enrich interpretive activity at many parks including AGFO. Within the life of this plan, there will be opportunities to use smartphones, other handheld technology, and the Internet in innovative ways. These new tools will empower audiences to explore on their own. Special activities can be recorded, preserved, and repeated for audiences whenever they visit. Partner connections will be enhanced, and links with scholars and scholarly

activity established. The park will be ready to use emerging technologies by:

- Identifying the intellectual property rights associated with the current park film. This information can be shared with the cooperating association so they can assess the feasibility of reproduction for sale. It also can identify segments of the film that can be used in other interpretive media.
- Developing content for a take along electronic program that will enrich the trail experience in the park. While specific technologies remain to be determined, the general outline of storylines and the materials available for use can be prepared and identified as preliminaries to actual development.
- Exploring the use of CT (CAT) scans to make rapid prototypes of fossils. The association might create reproduction sales items that allow audiences to retell park stories when they return home.
- Maintaining the use of Facebook as a digital bulletin board and expanding the use of Twitter. Focus on posting information and avoid time-consuming two-way communication.
- Reviewing, reassessing, and perhaps expanding links with partner websites.
- Identifying a partner(s) and working to develop a virtual earthcaching program.
- Working with tribal leaders to create a new film that looks at the park through the eyes of Indians. This would not replace but would supplement the existing film.
- Seeking outside assistance to update the existing AV equipment in the theater and ways to make the capabilities of the equipment more flexible.



Actions that link the past with current implications

Interactive hiker program

The most effective interpretation links contemporary audiences with park themes, suggesting emotional and intellectual connections. Although the span of time may appear to be too enormous to bridge, the basic themes, once they are introduced, have considerable relevance to the 21st century. Park staff and partners will take the following actions to ensure audiences understand the implications of the park's themes:

- Incorporate contemplative spaces into the expansion of the park's trails already begun. Create stops that encourage audiences to ponder the existing landscapes, envision the past, and consider what additional transitions might occur in the future. Consider using wayside exhibits to interpret the role that science has played in preserving landscapes and resources like those at the park.
- Use kiosks in parking lots to introduce park themes and pose questions to consider along trails.
- Develop a strategy to update the park's handbook and/or provide alternative publications that interpret the park's themes, including material that addresses



Summer storm along the
Niobrara River

contemporary issues (see above for a more complete discussion of a revised handbook/new publications).

- Use new temporary exhibit display space (see above) to introduce relevant issues like climate change.
- Provide the direction, supervision, and training required to ensure that personal services programs, formal and informal, help audiences discover relevance in AGFO's past. Include this objective as a factor in designing a new mix of formal and informal personal services.
- Create a site bulletin that connects the past with current issues.

Actions that expand partnerships

As illustrated by participation in the LRIP planning workshops, the park has many willing interpretive partners. As indicated in the narrative above, many action items require or would benefit from partner participation. Several other actions should be mentioned here. Park staff will:

- Work with the cooperating association to develop a Scope of Sales statement. Scopes of Sales provide guidance on the topics for titles that will be sold by the association (they must parallel and represent the primary themes), the audiences that sales items will appeal to (see Part 1 of this plan), and the types of items (publications, replicas, safety aids, etc.) that are appropriate.
- Work with the cooperating association to reassess online sales and explore a strategy that taps the potential for online sales while acknowledging limited staff to manage such a system.
- Assess the purpose and feasibility of a Friends group that could assist with fund raising and volunteer recruitment.

Staffing & Training

AGFO has limited staffing but pressing needs. Many of the actions recommended in this plan are not realistic unless the superintendent can hire a paleontologist and a chief of interpretation. The following actions are required in order for the park to reach its interpretive potential:

- Hire a paleontologist. See the implementation charts for action items that require a paleontologist to proceed.
- Hire a chief of interpretation. See the implementation charts for action items that require a chief of interpretation to proceed.

- Explore a strategy to develop sources of shared technical assistance focused on educational outreach and program development. Develop lists of educator resources—who to turn to for technical help.
- Experiment with staff exchanges with partner sites. These types of exchanges provide cross-fertilization of innovative ideas and can be particularly valuable with other fossil sites.
- Complete a list of museums with AGFO fossils in their collections and on display.
- Work with tribal partners to gather American Indian stories, history, games, and their personal meanings associated with park resources.
- Prepare a summary that places AGFO in the larger context of the history of paleontology.
- Amplify existing biographies of paleontologists who worked at AGFO.
- Develop an analytical database of information on ancient AGFO animals. Where, in addition to Nebraska, have these animals been found?

Research

Every park has a list of research projects that should be undertaken to accomplish a wide variety of goals. This list contains only those projects needed to accomplish the interpretive recommendations contained in this plan. Park staff will:

- Define the oral histories needed to capture and preserve the legacy of park creation, development, and scholarly investigation.



Cook Collection displayed in the Visitor Center.

Implementation Charts

Explain visiting options and present an accurate picture of the park's primary themes and what the park offers

Create clear statement of enticement—why come?	FY12	FY13	FY14	FY15	FY16	Fut.
	X					
Reassess distribution policy and location of brochures and rack card	FY12	FY13	FY14	FY15	FY16	Fut.
	X					
Reassess images on the park brochure and promo materials	FY12	FY13	FY14	FY15	FY16	Fut.
			As reprints occur			
Update Handbook or develop equivalent	FY12	FY13	FY14	FY15	FY16	Fut.
		Review		Publish		
Reassess and revise photo gallery and media on the website	FY12	FY13	FY14	FY15	FY16	Fut.
		X				
Add itineraries to park's website	FY12	FY13	FY14	FY15	FY16	Fut.
		X				
Work with partners to sponsor advertising	FY12	FY13	FY14	FY15	FY16	Fut.
	X	On-going				

Communicate with "local" audiences

Design and offer familiarization tour of the park	FY12	FY13	FY14	FY15	FY16	Fut.
	X	On-going				
Pursue addition of AGFO to Scottsbluff Chamber video shown on TV	FY12	FY13	FY14	FY15	FY16	Fut.
	Inquire	Implement				
Create traveling exhibit and develop potential venues with partners and regional office media specialist	FY12	FY13	FY14	FY15	FY16	Fut.
	Define	Design	Fund & Implement			
Expand calendar of special events	FY12	FY13	FY14	FY15	FY16	Fut.
	Plan	Implement				

Offer more interpretation for students, youth, and families

Develop a parent's guide with partners, educators	FY12	FY13	FY14	FY15	FY16	Fut.
		Plan		Produce		
Connect hands-on items to Cook Collection	FY12	FY13	FY14	FY15	FY16	Fut.
	X					
Design program for families to create their own winter count	FY12	FY13	FY14	FY15	FY16	Fut.
		X				
Develop family-oriented Indian activities with tribal partners	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires Chief of Interp					
Work with partners to develop clear statement of education goals	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires Chief of Interp					
Develop strategy to reach youth groups	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires Chief of Interp					
Develop strategy to reach Indian youth groups	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires Chief of Interp					
Contact schools to develop service learning and interns	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires Chief of Interp					
Apply for Teacher-Ranger-Teacher position	FY12	FY13	FY14	FY15	FY16	Fut.
		X				
Develop distance-learning programs with partner	FY12	FY13	FY14	FY15	FY16	Fut.
				X		

Offer more interpretation for students, youth, and families (continued)

Seek partner for summer paleocamp	FY12	FY13	FY14	FY15	FY16	Fut.
	If park centered, requires paleontologist or intern					
Promote "sleeping with fossils" program	FY12	FY13	FY14	FY15	FY16	Fut.
		For youth		For families		
Expand cultural arts program; more involvement by tribes	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires Chief of Interp					
Explore book club program; develop questions	FY12	FY13	FY14	FY15	FY16	Fut.
	Association will take the lead					
Work with partners to develop ed. kit for in classroom program	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires Chief of Interp					
Develop a new Junior Ranger program linked to partner sites	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires Chief of Interp					

Offer more opportunities to see “real” things, use the park’s trails, and develop a sense of place

Experiment with a new mix of personal services, assess VC desk	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires a Chief of Interp					
Work with paleontologist to develop a list/description of dig potential with description of next step	FY12	FY13	FY14	FY15	FY16	Fut.
	X					
Work with partners to develop a strategy for additional digs in the park	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires a paleontologist					
Install a cast bone bed exhibit in the field	FY12	FY13	FY14	FY15	FY16	Fut.
		PMIS		Implement when funded		
Integrate Indians into the out of doors stories (river, native plants, etc.)	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires a Chief of Interp					
Develop non-personal trail tours; enrich with new material	FY12	FY13	FY14	FY15	FY16	Fut.
		PMIS	Requires a Chief of Interp			
Complete wayside exhibit proposal and parking kiosks, with regional office media specialist	FY12	FY13	FY14	FY15	FY16	Fut.
	Plan	Fund	Implement			
Create interactive to reconstruct skeleton or equivalent	FY12	FY13	FY14	FY15	FY16	Fut.
		PMIS		Requires a Chief of Interp		

Offer more opportunities to experience park-related scholarly activity and experience the park from multiple points of view

Create space for a changing exhibit area (current research, breaking news, tribal events, climate change, etc.)	FY12	FY13	FY14	FY15	FY16	Fut.
		X				
Record paleontologists about their work/discoveries in the park	FY12	FY13	FY14	FY15	FY16	Fut.
	Plan	Implement				
Review block preparation demonstration idea as a special event or regular activity	FY12	FY13	FY14	FY15	FY16	Fut.
	Event	Regular activity requires paleontologist to train and supervise				
Discuss anthill discovery program with paleo partner	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires paleontologist					
Open a section of South Excavation area for a short period (annual event led by partner)	FY12	FY13	FY14	FY15	FY16	Fut.
			X			
Define tasks for interns and seek sources	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires a Chief of Interp, assistance from paleontologist					
Connect AGFO to places where AGFO fossils are displayed	FY12	FY13	FY14	FY15	FY16	Fut.
		Plan	PMIS			
Ask Association to reprint Hunt article in Museum Notes	FY12	FY13	FY14	FY15	FY16	Fut.
	X					

Use emerging technologies

Check rights to current film; explore as sales item	FY12	FY13	FY14	FY15	FY16	Fut.
	X	Association will take the lead				
Apply appropriate technology to take along tour programs	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires a Chief of Interp					
Explore use of CT scans to make rapid prototypes of fossils	FY12	FY13	FY14	FY15	FY16	Fut.
	Association will take the lead					
Maintain use of Facebook and expand use of Twitter as digital bulletin boards	FY12	FY13	FY14	FY15	FY16	Fut.
	X	Get training as available				
Review/assess/expand links to partner sites	FY12	FY13	FY14	FY15	FY16	Fut.
	Decide who	X				
Develop virtual earthcaching program with partner	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires a Chief of Interp					
Create film from Indian perspective	FY12	FY13	FY14	FY15	FY16	Fut.
		Plan		PMIS	Implement when funded	
Explore update of equipment in theater	FY12	FY13	FY14	FY15	FY16	Fut.
	PMIS		Implement when funded			

Challenge audiences to consider the implications that park themes may have for the 21st century

Build into new waysides and kiosks	FY12	FY13	FY14	FY15	FY16	Fut.
	X					
Integrate into revised handbook	FY12	FY13	FY14	FY15	FY16	Fut.
		Review		Publish		
Ensure messages are a part of personal services programs	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires a Chief of Interp					
Create a site bulletin connecting past change with present issues	FY12	FY13	FY14	FY15	FY16	Fut.
		X				

Expand/strengthen partnerships

Develop Scope of Sales with cooperating association	FY12	FY13	FY14	FY15	FY16	Fut.
	X					
Reassess online sales with cooperating association	FY12	FY13	FY14	FY15	FY16	Fut.
	X					
Assess the need for a Friends group	FY12	FY13	FY14	FY15	FY16	Fut.
			X			

Staffing/Training

Hire Park Paleontologist	FY12	FY13	FY14	FY15	FY16	Fut.
	OFS					
Hire Chief of Interpretation	FY12	FY13	FY14	FY15	FY16	Fut.
	OFS					
Explore ways to get technical assistance for education	FY12	FY13	FY14	FY15	FY16	Fut.
	X					
Collaborate with other fossil sites, visit, share information, exchange staff	FY12	FY13	FY14	FY15	FY16	Fut.
	On-going					

Research

Define oral history needs	FY12	FY13	FY14	FY15	FY16	Fut.
	Define	PMIS				
Complete list of museums with AGFO fossils	FY12	FY13	FY14	FY15	FY16	Fut.
		X				
Gather Indian stories, games, etc. with tribal cooperation	FY12	FY13	FY14	FY15	FY16	Fut.
	Requires a Chief of Interp					
Prepare short summary of AGFO context in history of paleontology	FY12	FY13	FY14	FY15	FY16	Fut.
	X					
Amplify biographies of paleontologists	FY12	FY13	FY14	FY15	FY16	Fut.
			X			
Project to place ancient AGFO animals into their global context	FY12	FY13	FY14	FY15	FY16	Fut.
		PMIS		Implement when funded		



Appendix

- Importance of Agate Springs Ranch
- Memorandum: Department of the Interior Scientific Integrity Policy
- Climate Change Response Program: Communication
- Connections with the General Management Plan
- Participants



Appendix 1

Importance of Agate Springs Ranch: A Summary

“James H. Cook bought the 04 Ranch—located near the headwaters of the Niobrara River in the northwestern corner of Nebraska and so named because of its proximity to the 104th meridian—from his father-in-law, E. B. Graham, in 1887, renaming it the Agate Springs Ranch. Even before they moved to the ranch, James and his soon-to-be wife Kate discovered another natural resource that would eventually become central to the ranch’s identity: fossils. After the initial discovery, narrated in the opening paragraph of this essay, the fossil beds gradually became central to the identity of the Cooks and their conception of the Agate Springs Ranch. As Graham put it in a letter to James and Kate’s son Harold, “the discovery of these great fossil beds will necessarily give that ranche [sic] that greatest renown of any ranche in the world.”

Calling the quarry “one of the world’s wonderlands,” he (James Cook) insisted that it “must be handeled [sic] accordingly from this time on. I cannot let such things as institutional rivalry or personal strife for priority right of description bring about trouble for me in the way of causing me to lose friends that have been brought to me by my discovery of fossils on this ranch.” In other words, he was proud of the high regard accorded him by the many scientists attempting to collect at Agate. Although he eschewed monetary rewards, Cook was determined to secure some of the social rewards, including the esteem of scientific collaborators.

The most active institution working at Agate, and an instructive contrast to the Carnegie Museum, was the American Museum, under director Henry Fairfield Osborn, paleontologist

William D. Matthew, and field man Albert Thomson. Osborn and Matthew were influential figures in the history of paleontology whose work in museum development and interpreting the evolution of life on earth ensured their fame well beyond their fieldwork in the American West. For them, the importance of Agate was not so much the renown of the site in its own right but how its material evidence, along with fossil material gathered from many other places, cast light on important scientific questions such as the evolution of mammals.” (from Jeremy Vetter Isis article)

“The great bonebed at Agate, Nebraska, remains today one of the most impressive and scientifically interesting paleontological sites in North America. From 1904 to 1925, thousands of bones of rhinoceros and chalicothere were discovered in northwestern Nebraska in the Agate quarries, excavated in a group of isolated hills overlooking the Niobrara River by paleontologists from the Carnegie Museum (Pittsburgh), University of Nebraska (Lincoln), Amherst College (Amherst), Yale University (New Haven), and the American Museum (New York).

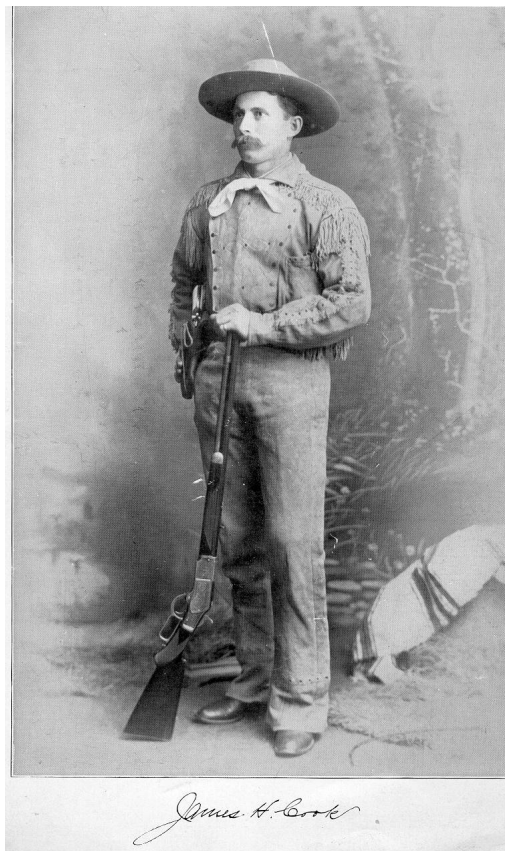
... An initial vigorous and competitive period of paleontological excavations was followed by a brief interlude from 1909 to 1910 when no excavations took place in the principal Agate quarries. The first excavations were carried out at Carnegie Hill in the Southwest and Northwest excavations by Carnegie parties under the direction of O.A. Peterson and W.H. Utterback, and at University Hill by University of Nebraska students supervised by E.H. Barbour. Large numbers of bones of the small rhinoceros *Menoceras arikareense* and a reasonably good sample of isolated bones of the chalicothere *Moropus elatus* resulted from this effort. But the most striking discoveries were a nearly complete skeleton of a large chalicothere found

in the south end of the Southwest Excavation, and two superb skeletons of the huge entelodont *Dinohyus hollandi* that today remain the most complete and best preserved skeletons of *Dinohyus* ever found.

... In 1911 the American Museum replaced the Carnegie ... under the able leadership of Albert (Bill) Thomson ... A large sample of the small Agate rhinoceros was excavated by the American Museum party, including an enormous slab of bones removed intact from the quarry floor. The slab when crated for shipment weighed over two tons and was transported to New York on a railroad flat car. However, Thomson's most significant discovery was a group of about 17 to 20 chalicotheres found at the north end of the Southwest Excavation, some individuals representing nearly intact skeletons. These well preserved fossils, in company with those found a few years earlier by Peterson and Utterback of the Carnegie Museum, formed the basis for the first complete

skeletal reconstructions of North American chalicotheres, and even today have not been surpassed in terms of quality, amount, or completeness of material. The chalicothere skeletons from the Agate quarries remain the best sample of New World chalicotheres ever discovered.

In 1981 the University of Nebraska State Museum began the first paleontological excavations in the fossil quarries at Agate Fossil Beds National Monument since the monument was created by Act of Congress in 1965. ... of most interest to us was the fact that Quarry 3's fauna of only mammalian carnivores was unusual and unexplained, particularly in view of the great rarity of carnivore remains in the quarries on Carnegie and University hills ... The subsequent discovery of large mammal burrows, unknown to Peterson, that contained skeletons of extinct early Miocene bearded dogs was featured in national and local media, and was published in the journal *Science* in July 1983. The Quarry 3 den site was identified as the oldest record of denning behavior in large mammalian carnivores known anywhere in the world." (from the introduction to "University of Nebraska Paleontological Excavations 1985-1986," Agate Fossil Beds National Monument, Robert M. Hunt, Jr., July 1988)



James Cook

Appendix 2

Memorandum

Department of the Interior Scientific Integrity Policy

February 8, 2011

Memorandum

To: All Employees

From: Director /s/ Jonathan B. Jarvis

Subject: Department of the Interior Scientific Integrity Policy

This week, the U.S. Department of the Interior became the first federal agency to issue a department-wide policy to ensure the scientific and scholarly integrity of the work we do and how it affects the management decisions we make. This new policy exceeds the expectations articulated by the President in his Memorandum on Scientific Integrity, dated March 9, 2009.

This new policy applies to every employee, and I encourage each of you to read it and the Code of Scientific and Scholarly Conduct it establishes. It has been incorporated into the Departmental Manual which is available online at http://elips.doi.gov/app_dm/act_getfiles.cfm?relnum=3889.

This policy applies when employees:

- engage in, supervise, manage, or influence scientific and scholarly activities,
- communicate information about the Department's scientific and scholarly activities, and
- utilize scientific and scholarly information in making agency policy, management, or regulatory decisions.

In addition to employees, the policy applies to all volunteers, contractors, cooperators, partners, permittees, leasees, grantees, and others who assist with developing or applying the results of scientific and scholarly activities.

It also includes specific elements addressed to scientists, scholars, and decision makers and outlines a process for handling allegations of scientific and scholarly misconduct, while protecting the rights and privacy of individuals covered by the policy.

Further, the policy offers guidance on service on committees and boards related to scientific and scholarly work. It does not supersede or replace existing policies and procedures related to ethical standards or guidance on information quality.

I have designated Dr. Gary Machlis, Science Advisor to the Director, as our Bureau Scientific Integrity Officer. Dr. Machlis will be responsible for all aspects of our implementation, including review of allegations of scientific and scholarly misconduct made against NPS employees and deciding whether an inquiry is warranted.

Secretary Salazar has clearly summed up the importance of this new policy: "[It] will help to ensure that we remain steadfast in our efforts to have high-quality science and scholarship informing our decisions and advancing the Department's mission in the best interests of the American people."

Science and scholarship make essential contributions to the NPS mission, and the DOI Code of Scientific and Scholarly Conduct is an essential standard for the NPS. Please join me in incorporating this important new policy into the work we do, and in advancing the role of science and scholarship within the NPS.



Niobrara River Valley bottomlands

Appendix 3

Climate Change Response Program: Communication

National parks provide opportunities to engage citizens of all ages in experiencing the wonders of these areas. These natural classrooms offer a direct view into our cultural heritage and wild riches, through which the public can come to understand how climate change is altering the places we love. From this vantage point, and aided by a cadre of communication professionals dedicated to connecting parks to the public, the National Park Service (NPS) is uniquely positioned to touch many of the nearly 300 million visitors a year that come to national parks.

Seeing climate impacts first-hand, and developing an understanding about how climate change directly impacts nearby or beloved resources, are essential to develop a public that is engaged with national parks, supportive of climate change response, and motivated to take practical action to become climate friendly.

Education and Communication Goals

We must learn effective strategies for conveying accurate information to a wide range of audiences, facilitate dialog about possible climate change scenarios, encourage sustainability, and provide services that empower individuals to achieve solutions. Education and communication should address visitor interests as well as that of our partners and employees. Four goals will guide climate change communication and education in the parks:

- **Coordinate and distribute climate change information throughout the National Park Service.** To manage the rapidly growing volume of climate science, the NPS will develop many

different types of interpretive products to reach diverse audiences. We will collaborate with experts to produce management strategies and summaries of relevant research; and further communication of the issue among NPS staff.

- **Increase climate change knowledge and understanding within the National Park Service.** NPS leadership will regularly emphasize and highlight climate change information in internal communications and will train employees in climate change competencies to create a workforce of climate response champions.
- **Provide external communications about the implications of climate change and the NPS response.** To communicate with our partners and the public, we will develop key messages on climate change, provide guidance on their use, and assist parks with presenting an accurate and consistent servicewide message. A broad range of interpretive communication products will be developed to inform general audiences about the impact of climate change to parks, and climate-friendly practices. Special attention will be given to learning opportunities for teachers and students, and youth involvement in climate change projects.
- **Model and communicate sustainable practices that lead by example.** Demonstration projects within park not only serve to meet our obligation to mitigate climate impacts, but also show the public what they can accomplish. Experience gained by the NPS in the Climate Friendly Parks Program will be condensed into a “Do Your Part” campaign that

encourages visitor opportunities to reduce their carbon footprint.

The Climate Change Response Program utilizes many different avenues to get information, science, and ideas out to our staff and partners. We distribute a monthly newsletter, we also host monthly webinars that feature top climate scientists or communicators, and we have developed bioregional talking points that synthesize the climate science in each region. Our Useful Resources page has a list of websites that represent information that is relevant to climate change and the National Park System. Visit our Climate Change Myths page to learn more about the common myths of climate change.

Appendix 4

Connections with the General Management Plan

Since the NPS also is preparing a General Management Plan for AGFO, it is critical that this LRIP complements that planning effort. Specifically, the contents of the Foundation in both documents should be the same.

In addition, discussions held to prepare each document invariably will gather useful information that should be shared. For example, the audience experiences developed for the LRIP relate directly to the alternatives contained in the GMP, and comments on interpretation submitted during review of the draft GMP should be considered during LRIP planning workshops.

Suggestions related to education/interpretation/training (July 2009)

Comments related to education and interpretation focused on methods for visitors to learn more about the history and culture of the Oglala Lakota people, and demonstration exhibits where people can see and

touch fossils and/or watch researchers unearthing fossils. Many requested on-site displays so the fossils could be seen in place. Comments also suggested programs about early and current ranching practices.

“Things for kids/ families to do to be educated about the Oglala Lakota Nation. How did Native Americans use their environment?”

“Participate in making a Native American craft.”

“Develop the fossil beds on the trail so people can see the actual fossil out in site. I’m sure it is a big disappointment to walk and not see anything out in site.”

“On-going dig that provides research, but also allows the public to watch.”

“I would like to be able to interact with the resources more—hands-on or classes about the park.”

Preliminary Alternatives

Preliminary alternatives from the ongoing GMP discussion revolve around the goal of including more active fossil research and interpretation in park programs and possibly adding a campground to the park. The role of the Hoffman House also seems to include its continued practical value as a structure for multiple uses. Current budgetary constraints point to a need to be creative and involve partnerships and other technological innovation to achieve park goals.

Participants

Those attending the LRIP workshops included:

Rachel Benton, Badlands National Park	Sally Shelton, Museum of Geology, South Dakota School of Mines and Technology
Tom Farrell, Wind Cave National Park	Karen Snook, Chadron Chamber of Commerce
Mitzi Frank, Fort Laramie National Historic Site	Ellen Stepleton, University of Nebraska
Al Herbel, community member	Kate Sullivan, Agate Fossil Beds National Monument
Lois Herbel, Oregon Trails Museum Association	Anne Wilson, Agate Fossil Beds National Monument
Mark Hertig, Agate Fossil Beds National Monument	Aaron Wood, South Dakota School of Mines and Technology
James Hill, Agate Fossil Beds National Monument	Warren Guss Yellow Hair, Oglala
Bob Hunt, University of Nebraska	
Anne James, Riverside Discovery Center	Ron Thomson, Workshop facilitator
Rick Jones, National Park Service, Harpers Ferry Center	Jim Cokas, Document design
Jolene Kaufman, Oregon Trails Museum Association	
Richard Kaufman, community	
Lil Mansfield, Agate Fossil Beds National Monument	
Joe McDowell, Agate Fossil Beds National Monument	
Lisa Myles, Educational Services Unit 13	
Betsy Poor Bear, Scottsbluff	
Hanson Poor Bear, Scottsbluff	
Loren Pospisil, Chimney Rock, Nebraska State Historical Society	
Darrin Pagnac, South Dakota School of Mines and Technology	
Joseph Reasoner, Fort Laramie National Historic Site	
Tom Richter, Midwest Regional Office, National Park Service	
Don Scott, Agate Fossil Beds National Monument	



Agate Fossil Beds National Monument

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